

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc., Winter 2017-18 Examination

Semester:3

Subject Code: 11204202

Subject Name: Numerical Method and Analogue Electronics.

Date: 21/12/2017

Time: 10:30am to 01:00pm

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1. A Write a Brief Note: (08)

- (a) Explain Picard's Method
- (b) Explain Taylor's series Method

Q.1. B Answer the following questions (Any two)

- (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
 1. Write a note on Euler's Method
- (b) Write a short note on Modified Euler's Method (04)
- (c) Explain Runge's Method (04)

Q.2. A Answer the following questions.

- (a) Explain High And Low pass filter (04)
- (b) Explain Runga-Kutta Method (04)

Q.2. B Answer the following questions (Any two)

- (a) Short note (04)
 1. Write a note on Elliptical Equations
- (b) Give a Solution of Laplace Equations (04)
- (c) Explain Parabolic Equations (04)

Q.3. A Write a Brief Note:

- (a) Give a Solution of Two dimensional Heat Equations (04)
- (b) Explain IF Regulators using 723 (04)

Q.3. B Answer the following questions (Any two)

- (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
 1. Explain Low and High Voltage regulators
- (b) Explain Current booster transistor (04)
- (c) Explain Fold back current limiting circuit (04)

Q.4. A Answer the following questions.

- (a) Short note (04)
 1. Explain about The Pole-zero diagram

Q.4. B Answer the following questions (Any two)

(a) Short note/ Multiple choice questions. (Each of 01 marks) **(04)**

1. Explain Response to Pulses

(b) Write a short note on Stagger tuned amplifiers **(04)**

(c). Explain Tuned Secondary FET amplifiers **(04)**